

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-54. (Cancelled)

55. (Currently Amended) A device for monitoring glucose concentration in a biological sample of a host, the device comprising:

a continuous glucose sensor that produces a data stream indicative of a glucose concentration in a host, the data stream including a plurality of time spaced sensor data points; and

an integrated receiver that receives the data stream from the continuous glucose sensor, wherein the integrated receiver includes a single point glucose monitor, a processor, and a computer readable memory, wherein the single point glucose monitor is configured to receive a biological sample from the host and to measure the concentration of glucose in the sample, the measured glucose concentration including a reference data point, and wherein the computer readable memory includes instructions configured to cause the processor to process the data stream received from the continuous glucose sensor based on the reference data point, determine a rate of change of the processed data stream received from the continuous glucose sensor, and calibrate the data stream using [[the]] glucose concentration measured by the single point glucose monitor based on the rate of change determination[[.]];

wherein the computer readable memory includes instructions configured to cause the processor to not calibrate or recalibrate the data stream received from the continuous glucose sensor when the determined rate of change of the processed data stream received from the continuous glucose sensor deviates from a predetermined threshold.

56. (Previously Presented) The device of claim 55, wherein the integrated receiver is configured to reject a reference data point obtained when the rate of change of the data stream is above a threshold.

57. (Previously Presented) The device of claim 55, wherein the integrated receiver includes a data matching module configured to match a reference data point to a sensor data point to form a matched data pair, wherein the reference data point and the sensor data point are obtained at substantially corresponding times, and wherein the rate of change of the data stream is below a threshold at the time the sensor data point is obtained.

58. (Currently Amended) The device of claim 55, wherein the integrated receiver includes a calibration module configured to form calibration information based at least in part on at least one reference data point and at least one sensor data point, wherein the reference data point and the sensor data point are obtained at substantially corresponding times, and wherein the rate of change of the data stream is below a threshold at the time the sensor data point is obtained.

59. (Previously Presented) The device of claim 55, wherein the integrated receiver includes a conversion function module configured to create a conversion function based at least in part on at least one sensor data point, wherein the sensor data point is obtained when the rate of change of the data stream is below a threshold, and wherein the conversion function is configured to convert the sensor data point in a calibration data point.

60. (Previously Presented) The device of claim 55, wherein the integrated receiver includes a sensor data transformation module configured to convert at least one sensor

data point into a calibrated data point, and wherein the rate of change of the data stream at the time at which the sensor data point is obtained is below a threshold.

61. (Previously Presented) The device of claim 55, wherein the integrated receiver includes a calibration module configured to form a calibration set based at least in part on at least one matched data pair, the matched data pair including a reference data point and a sensor data point, wherein the reference data point and the sensor data point are obtained at substantially corresponding times, and wherein the integrated receiver includes a calibration evaluation module configured to evaluate the matched pair, wherein the calibration evaluation module is configured to prevent the matched data pair from influencing the calibration set if the rate of change of the data stream at the time the sensor data point is obtained is above a threshold.

62. (Previously Presented) The device of claim 55, wherein the integrated receiver includes a clinical module configured to compare a first reference data point to a second reference data point to determine whether the first reference data point is clinically acceptable, wherein the second reference data point is obtained prior to obtaining the first reference data point, and wherein the first reference data point is determined to be clinically acceptable if the difference between the first reference data point and the second reference data point is below a threshold.

63. (Previously Presented) The device of claim 55, wherein the integrated receiver includes a clinical module configured to compare a first sensor data point to a second sensor data point to determine whether the first sensor data point is clinically acceptable, wherein the second sensor data point is obtained prior to obtaining the first sensor data point, and wherein the first sensor data point is determined to be clinically acceptable if the difference between the first sensor data point and the second sensor data point is below a threshold.

64. (Previously Presented) The device of claim 55, wherein the integrated receiver includes a stability module configured to determine whether the sensor data is stable, and wherein the sensor data is determined to be stable if the rate of change of the data stream is below a threshold at the time the sensor data was obtained.

65. (Previously Presented) The device of claim 64, wherein the data stream comprises measurements indicative of in vivo glucose concentration, and wherein the threshold is set at a predetermined level.

66. (Previously Presented) The device of claim 64, wherein the data stream comprises measurements indicative of in vivo glucose concentration, and wherein the threshold is 0.25 mg/dL/min.

67. (Previously Presented) The device of claim 64, wherein the data stream comprises measurements indicative of in vivo glucose concentration, and wherein the threshold is 0.5 mg/dL/min.

68. (Currently Amended) The device of claim 64, wherein the data stream comprises measurements indicative of in vivo glucose concentration, and wherein the threshold is greater than 0.5 ~~mg/dL/min~~ mg/dL/min.

69. (Previously Presented) The device of claim 55, wherein the integrated receiver includes an interface, and wherein the interface is configured to request additional reference data when the rate of change of the data stream is below a predetermined threshold.

70-72. (Cancelled)

73. (Previously Presented) The device of claim 55, wherein the integrated receiver includes an interface configured to display continuous glucose sensor data and single point glucose monitor data.

74-148. (Cancelled)